

Amendments to the Claims

1-13. (Canceled)

14. (Previously Presented) A system for receiving a communication signal at a tower having an upper portion and a lower portion, the system comprising:

 a timing source located at the lower portion and configured to generate a stable timing signal, wherein the stable timing signal comprises a global positioning system based timing signal;

 a transmission medium extending between the upper portion and the lower portion and configured to carry power and the stable timing signal from the lower portion to the upper portion;

 an inserter located at the lower portion and configured to insert the power and the stable timing signal onto the transmission medium;

 a stabilized local oscillator located at the upper portion and configured to receive the stable timing signal and to use the stable timing signal as an input to generate a stabilized oscillator signal comprising a frequency that does not drift;

 an antenna located at the upper portion and configured to receive the communication signal;

 a block converter configured to use the stabilized oscillator signal to convert a frequency of the communication signal to a stable lower frequency;

 a fiber optic transmitter located at the upper portion and configured to convert the lower frequency communication signal to an optical signal and to transmit the optical signal over fiber optic cable extending between the upper portion and the lower portion; and

 a fiber optic receiver located at the lower portion and configured to receive the optical signal over the fiber optic cable.

15. (Previously Presented) The system of claim 14 further comprising a filter configured to filter at least one member of a group consisting of emissions and another communication signal.

16. (Original) The system of claim 14 further comprising an amplifier configured to amplify the

communication signal.

17. (Previously Presented) The system of claim 14 further comprising an electrical converter located at the lower portion and configured to convert the optical signal to an electrical signal.

18. (Canceled)

19. (Previously Presented) The system of claim 14 further comprising a transformer located at the lower portion and configured to transform the power from a first level to a second level, wherein the inserter is configured to receive the power at the second level.

20. (Canceled)

21. (Previously Presented) The system of claim 14 further comprising a distributor located at the upper portion and configured to receive the power over the transmission medium and to distribute the power to at least one member of a group consisting of the block converter, the fiber optic transmitter, and the stabilized local oscillator.

22. (Previously Presented) The system of claim 14 further comprising an external receiver located at the lower portion and configured to receive external timing signals from an external timing source and to generate the external timing signals to the timing source.

23. (Original) The system of claim 14 further comprising a suppressor configured to suppress electrical interference for the system.

24-28. (Canceled)

29. (Original) The system of claim 14 wherein the stable timing signal comprises approximately a ten megahertz global position system timing pulse.

30. (Original) The system of claim 14 wherein the communication signal comprises a

multipoint multichannel distribution service based communication signal.

31. (Original) The system of claim 14 wherein the frequency of the communication signal comprises a high frequency and the stable lower frequency comprises an intermediate frequency.

32. (Original) The system of claim 14 wherein the frequency of the communication signal comprises approximately between 2.15-2.17 gigahertz.

33. (Previously Presented) The system of claim 14 further comprising:

a redundant block converter located at the upper portion and configured to use the stabilized oscillator signal to convert the frequency of the communication signal to another stable lower frequency;

a redundant fiber optic transmitter located at the upper portion and configured to convert the other lower frequency communication signal to another optical signal and to transmit the other optical signal over another fiber optic cable extending between the upper portion and the lower portion; and

a redundant fiber optic receiver located at the lower portion and configured to receive the other optical signal over the other fiber optic cable.

34. (Previously Presented) The system of claim 33 further comprising a selector located at the lower portion and configured to select for receiving the optical signal or the other optical signal.

35-44. (Canceled)

45. (Previously Presented) A method for receiving a communication signal at a tower having an upper portion and a lower portion, the method comprising:

generating a stable timing signal at the lower portion, wherein the stable timing signal comprises a global positioning system based timing signal;

inserting power and the stable timing signal at the lower portion onto a transmission medium extending between the lower portion and the upper portion;

using the stable timing signal as an input to a local oscillator located at the upper portion

to generate a stabilized oscillator signal comprising a frequency that does not drift;
receiving the communication signal at the upper portion;
using the stabilized oscillator signal to convert a receiving frequency of the
communication signal to a stable lower frequency at the upper portion;
converting the lower frequency signal to an optical signal at the upper portion and
transmitting the optical signal over fiber optic cable extending between the upper portion and the
lower portion; and
receiving the optical signal over the fiber optic cable at the lower portion.

46. (Previously Presented) The method of claim 45 further comprising filtering at least one member of a group consisting of emissions and another communication signal.

47. (Original) The method of claim 45 further comprising amplifying the communication signal.

48. (Previously Presented) The method of claim 45 further comprising converting the optical signal to an electrical signal after receiving the optical signal over the fiber optic cable at the lower portion.

49. (Canceled)

50. (Previously Presented) The method of claim 45 further comprising receiving external timing signals at the lower portion from an external timing source and using the external timing signals to generate the stable timing signal.

51-54. (Canceled)

55. (Original) The method of claim 45 wherein the communication signal comprises a multipoint multichannel distribution service based communication signal.

56. (Original) The method of claim 45 wherein the receiving frequency of the signal comprises

a high frequency and the lower frequency comprises an intermediate frequency.

57-68. (Canceled)